



CCT460: ADVANCED WEB DESIGN

Responsive Web Design & Mobile Optimization

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Middle East Tumult Leaves Palestinians Sidelined

By ETHAN BRONNER
31 minutes ago

As Israel and other world powers focus on the Arab Spring and tensions with Iran, the Palestinian issue has effectively been shelved, leaving Palestinian leaders at a loss.

[Read Comments \(130\)](#)

Pentagon Reviews Options in Syria, but Counsels Diplomacy

By ELISABETH BUMILLER
2:41 PM ET

Defense Secretary Leon E. Panetta said the best solution would not involve military intervention, but that the United States was reviewing all options.

- U.N. Official Visits Devastated Syrian City 2:26 PM ET

Quest to Clarify Bin Laden's Last Days Adds Confusion

By DECLAN WALSH
26 minutes ago

A quixotic investigation that began as a personal attempt to truth-check accounts of Osama



Brigitte Lacombe for New York Magazine

A Discussion: Life of a 'Salesman'

Charles Isherwood leads a discussion with the director Mike Nichols and others about Arthur Miller's drama. Philip Seymour Hoffman stars in the Broadway revival.

No Longer United Against Mitt Romney

By MICHAEL D. SHEAR and TRIP GABRIEL 27 minutes ago

Two important southern primaries are leading Rick Santorum and Newt Gingrich to battle each other as they try show they can unite the party's conservative base.

Exit Polls: Who Voted for Whom on Tuesday

Source: Edison Research

- Graphic: The Delegate Count
- Slide Show: Super Tuesday

TV Station to Drop Veteran Anchor Sue Simmons

By JAMES BARRON and BRIAN STELTER 4:14 PM ET

Ms. Simmons, an anchor for WNBC-TV, has been a fixture on

OPINION »

OPINIONATOR | FIXES

Africa's Girl Power

A group called Camfed is bringing lasting social change to African countries by educating hundreds of thousands of girls.

- Friedman: The Iran Issue
- Dowd: Liz Cheney, Desist!
- Editorial: Super Tuesday
- Op-Ed: Improve Restaurant Report Cards
- Gutting: Government and Happiness

MARKETS »

At 8:51 PM ET

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|----------|-----------|----------|--|
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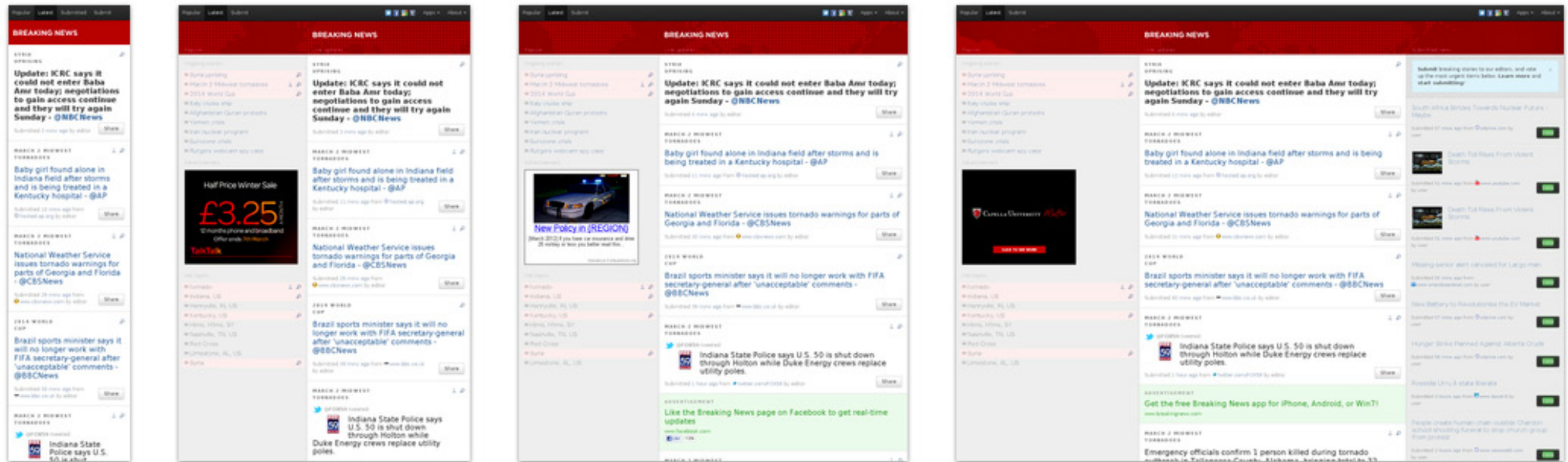
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Submitted 1 hour ago from www.sciencedaily.com by user

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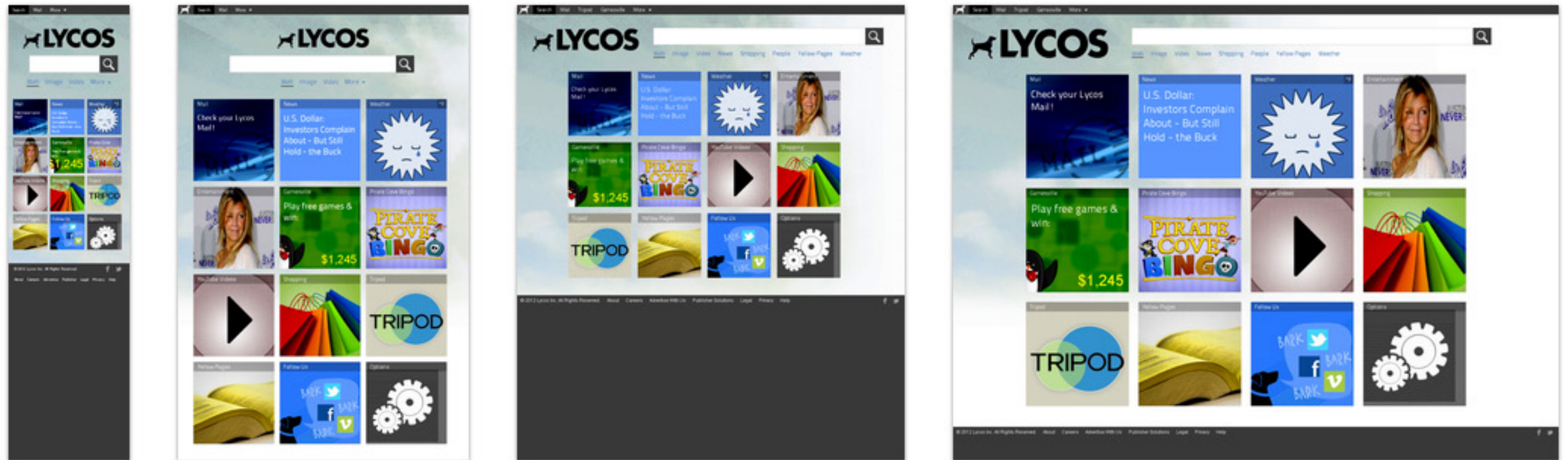
Fox News Compares FBI Informant 'Sabu' To Hitler

Try the same experiment with <http://breakingnews.com>
 What is different about this site? (Also: try it on a tablet)



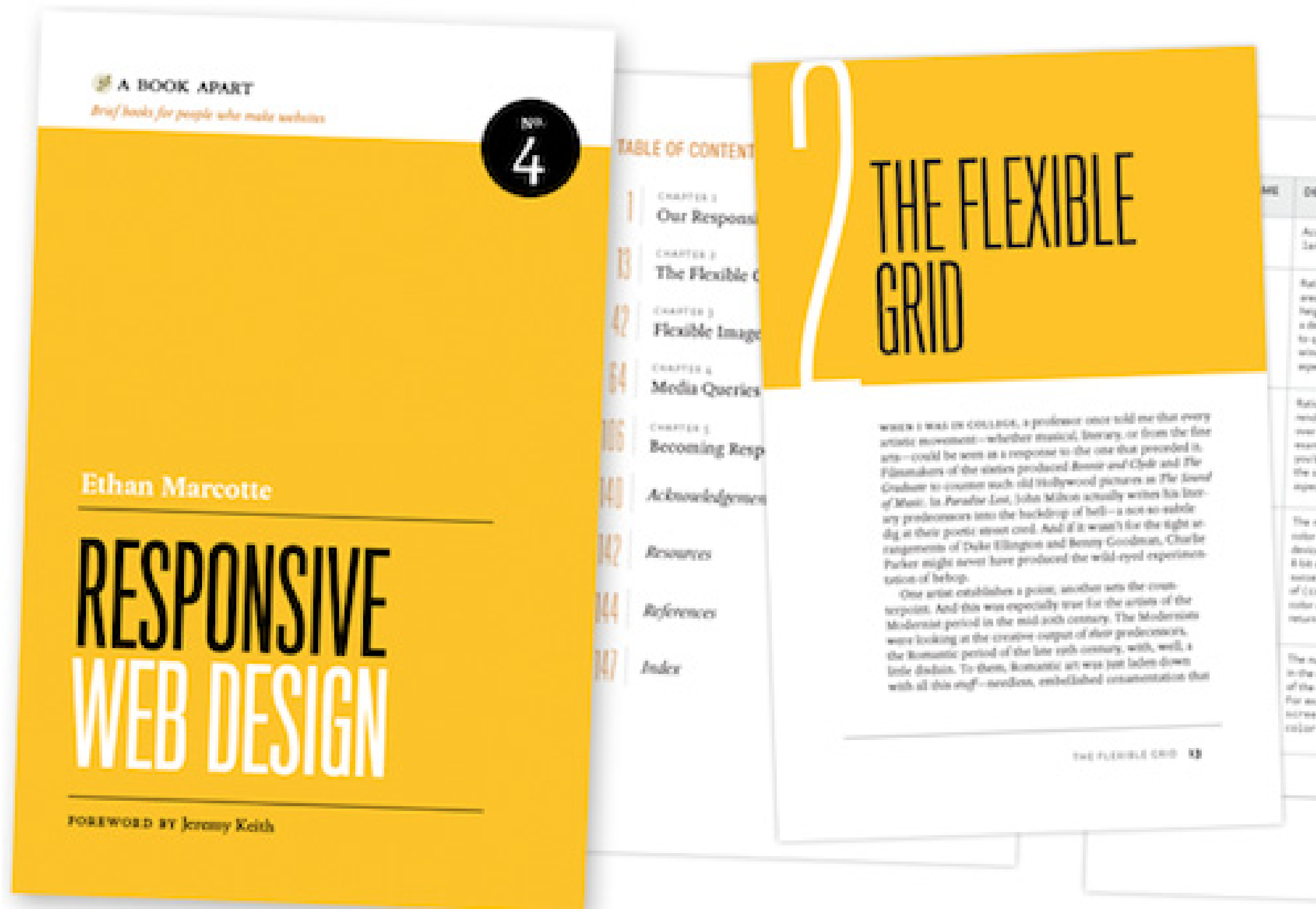
Ok, let's reverse engineer that workflow.

What needs to be going on design wise to facilitate this flexibility? (You don't need to know the technical lingo, just describe it based off the vocabulary we're using in this course)



Correct terminology for this kind of behaviour is responsive web design.

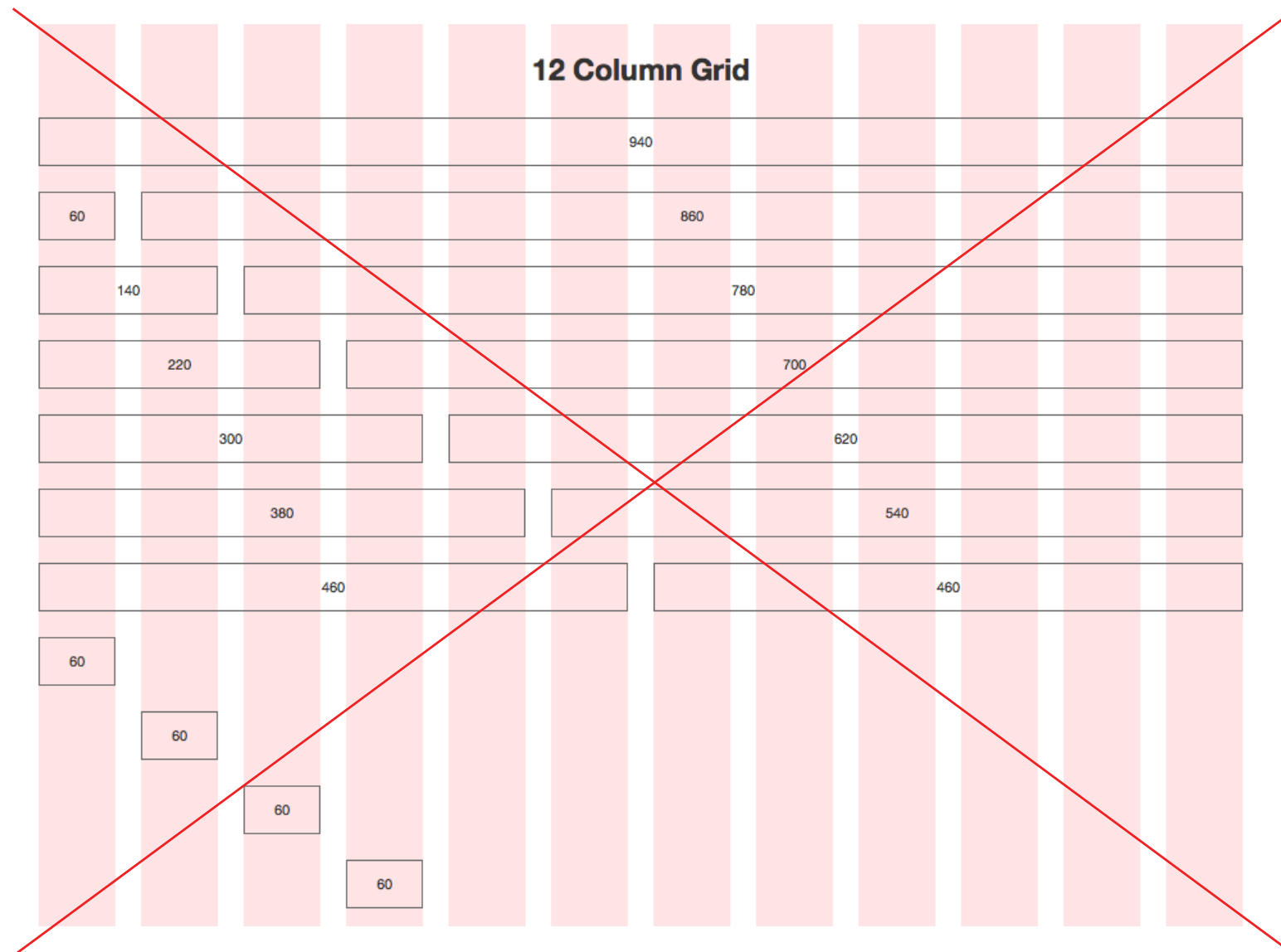
“...we can craft sites that are not only more flexible, but that can adapt to the media that renders them... We can embrace the flexibility inherent to the web, without surrendering the control we require as designers. All by embedding standards-based technologies in our work, and by making a slight change in our philosophy...” – Ethan Marcotte



Published 2011 – the ‘bible’ on this topic (see also: Luke Wroblewski’s “Mobile First”)

Marcotte's 'ingredients' for responsive web design:

- a flexible, grid based layout
- flexible images and media
- media queries (CSS3 specification)



Marcotte stresses the need to work with relative vs. absolute sizes. So instead of:

```
h1 {  
font-size: 24px; font-style: italic; font-weight: normal;  
}
```

we'd use:

```
h1 {  
font-size: 1.5em; font-style: italic; font-weight: normal;  
}
```

Why does 1.5ems give us 24px for the h1?

Now, if we wanted to develop a relative element for page divs and classes for a hypothetical blog.

```
#page {  
margin: 36px auto;  
width: 960px;  
}
```

```
.blog {  
margin: 0 auto 53px;  
width: 900px;  
}
```

```
.blog .main {  
float: left;  
width: 566px;  
}
```

```
.blog .other {  
float: right;  
width: 331px;  
}
```

We'd use
this instead:

```
#page {  
margin: 36px auto;  
width: 90%;  
}
```

```
.blog {  
margin: 0 auto 53px;  
width: 93.75%; /* 900 px / 960px */  
}
```

```
.blog .main {  
float: left;  
width: 62.8888889%; /* 566 px / 960px */  
}
```

```
.blog .other {  
float: right;  
width: 36.77777778%; /* 331 px / 960px */  
}
```



Images are just sent to 100%!
width: 100% and call it a day.
See: <http://svendecabooter.be/drupal-responsive-images> (demo)

BG Images: jQuery Backstretch
<http://drupal.org/project/backstretch>

Media Queries!

7.1 Introduction to media types

One of the most important features of style sheets is that they specify how a document is to be presented on different media: on the screen, on paper, with a speech synthesizer, with a braille device, etc.

Certain CSS properties are only designed for certain media (e.g., the 'page-break-before' property only applies to paged media). On occasion, however, style sheets for different media types may share a property, but require different values for that property. For example, the 'font-size' property is useful both for screen and print media. The two media types are different enough to require different values for the common property; a document will typically need a larger font on a computer screen than on paper. Therefore, it is necessary to express that a style sheet, or a section of a style sheet, applies to certain media types.

<http://www.w3.org/TR/CSS2/media.html>

Media Queries!

7.3 Recognized media types

The names chosen for CSS media types reflect target devices for which the relevant properties make sense. In the following list of CSS media types the names of media types are normative, but the descriptions are informative. Likewise, the “Media” field in the description of each property is informative.

all – Suitable for all devices.

braille – Intended for braille tactile feedback devices.

embossed – Intended for paged braille printers.

handheld – Intended for handheld devices (typically small screen, limited bandwidth).

print – Intended for paged material and for documents viewed on screen in print preview mode.

projection – Intended for projected presentations, for example projectors.

screen – Intended primarily for color computer screens.

speech – Intended for speech synthesizers.

tty – Intended for media using a fixed-pitch character grid (such as teletypes, terminals, or portable devices with limited display capabilities). Authors should not use pixel units with the “tty” media type.

tv – Intended for television-type devices (low resolution, color, limited-scrollability screens, sound available).

@media screen and (max-device-width: 320px) and (orientation: portrait)



@media screen and (min-device-width: 480px) and (orientation: landscape)

Within Drupal:

Check out:

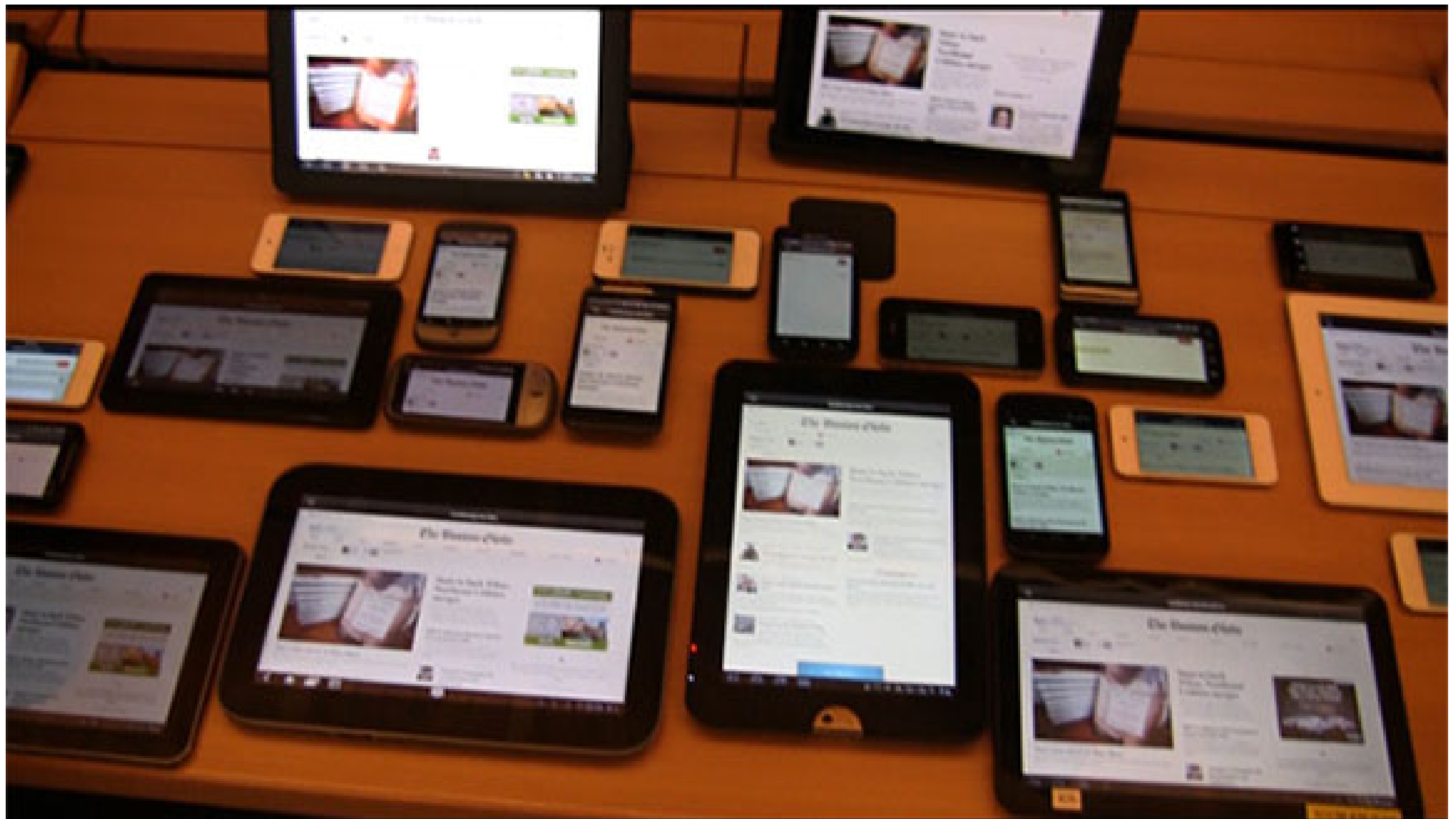
Omega: <http://drupal.org/project/omega>

AdaptiveTheme: <http://drupal.org/project/adaptivetheme>

Terrain: <http://drupal.org/project/terrain> (demo)

Square Grid: <http://drupal.org/project/squaregrid>

See also: http://drupal.org/project/mobile_tools



Adobe Shadow – <http://tv.adobe.com/watch/adobe-technology-sneaks-2012/adobe-shadow>